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EXHIBIT 9

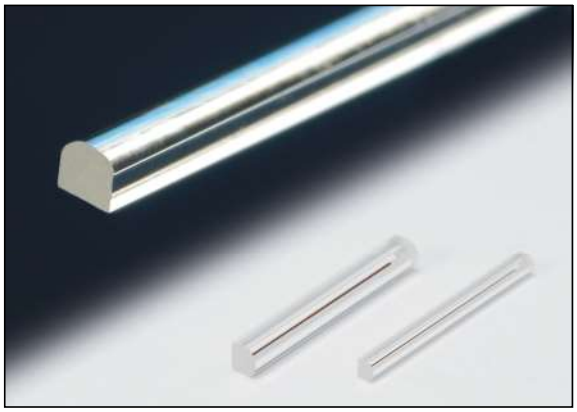
NEW

FAC LENS (Fast-Axis Collimating Lens)

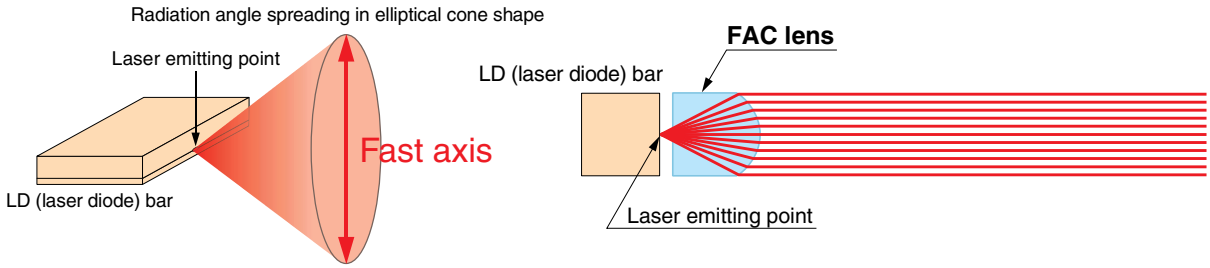
J10919 SERIES

OVERVIEW

The J10919 series FAC lens is an optical lens that collimates light spreading from a semiconductor laser in the fast-axis direction. Semiconductor lasers have a large divergence angle in the fast-axis direction, so the output light cannot be efficiently used unless collimated. The FAC lens collimates light spreading from a semiconductor laser into a narrow beam with a radiation angle of several milliradians (mrad) or less so that the diverging light can be efficiently utilized.



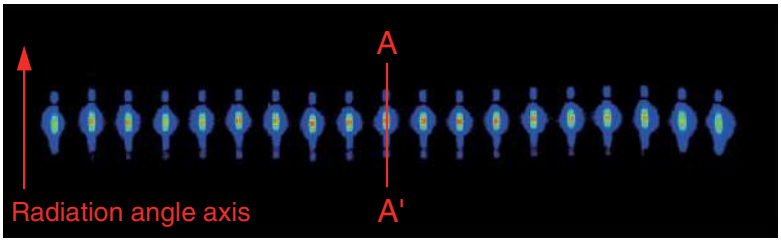
COLLIMATING LIGHT

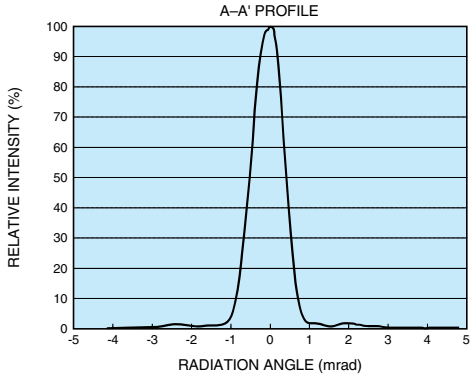


FEATURES

- Aspheric micro-cylindrical lens
- Highly efficient utilization of light from LD bar
- Small variations in characteristics allow mass production
- Minimized smile and side lobes due to high-precision fabricating technology

OUTPUT DISTRIBUTION IMAGE WHEN INSTALLED TO LD BAR





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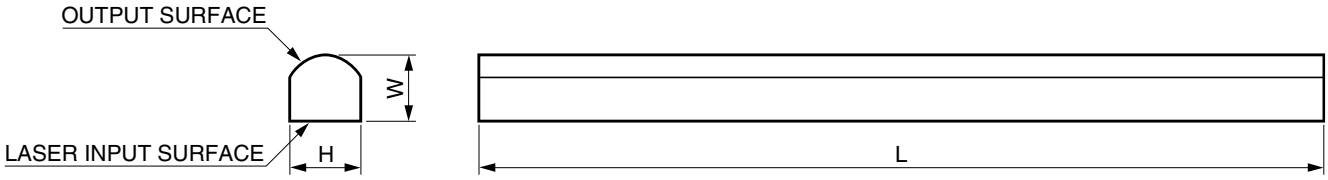
SPECIFICATIONS

Parameter		J10919-01	J10919-02	Unit
Material		High refractive index glass (developed in-house)		—
Design Wavelength		808		nm
Refractive Index at 808 nm		1.812		—
Length (L)		12.00		mm
Height (H)		1.00	1.50	mm
Width (W)		0.94	1.41	mm
Effective Focal Length (EFL)		0.61	0.92	mm
Back Focal Length (BFL)		0.10	0.15	mm
Effective Area		90 % of output area		—
Numeric Aperture (NA)	Min.	0.8		—
Coating		Anti-reflection film		—
Efficiency	Min.	85 (±1.5 mrad)	85 (±1.0 mrad)	%
Operating Ambient Temperature		-30 to +60		°C

DIMENSIONAL OUTLINES (Unit: mm)



* See the above specification table for L, H and W.

MACHINING OPTIONS

- **Changing length**
- **Grooving at edge**
- **Changing focal length**
- **Changing design wavelength**

Please feel free to contact us for modification.

Example of grooving at edge

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